



Attorney Docket No. 01730/LH

**IN THE UNITED STATES PATENT
AND TRADEMARK OFFICE**

Applicant(s): T. IGARASHI, ET AL
Serial No. : 10/014,108
Filed : November 13, 2001
For : IMAGE OUTPUTTING APPARATUS
AND APPARATUS ADMINISTRATING
SYSTEM
Art Unit :
Examiner :

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

S I R :

Please amend the above-identified application as set forth
hereinbelow.

IN THE SPECIFICATION:

Please replace the paragraph at page 2, lines 12-17 with the
following:

In the image outputting apparatus of this kind, if each
of the film scanner unit, the exposure unit and the
developing unit is sometimes upgraded independently, or if a
software is upgraded to a higher version separately, there
are sometimes caused troubles on the image outputting
apparatus.

CERTIFICATE OF MAILING

I hereby certify that this
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Sharon Portnoy
Sharon Portnoy

Dated: March 7, 2002

In the event that this Paper
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And please replace the paragraph at page 3, lines 15-18 with the following:

Therefore, maintenance of the image outputting apparatus must reflect circumstances of each user or of each apparatus and meteorological conditions of an area for installation, which is extremely complicated.

N THE ABSTRACT:

Please replace the Abstract of the Disclosure at page 67 of the application with the following:

ABSTRACT

In an apparatus administrating system, transmission and receipt are possible between at least one image outputting apparatus and an administrating apparatus that conducts maintenance administration for the image outputting apparatus mutually. Each function and each unit both necessary for operating the image outputting apparatus are controlled on a unification basis. The administrating apparatus acquires information about the functions and units of the image outputting apparatus through transmission and receipt. And software of plural image outputting apparatuses capable of operating under appropriate conditions including the image outputting apparatus are updated as occasion demands.

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IN THE CLAIMS

Cancel claims 1-23, without prejudice, and substitute the following new claims 24-50:

24. (New) An apparatus administrating system comprising:
an image outputting apparatus having a plurality of
functions and a plurality of units which are controlled by
software; and

5 an administrating apparatus connected with the image
outputting apparatus to enable information to be transmitted or
received between the image outputting apparatus and the
administrating apparatus, such that the administrating apparatus
is enabled to conduct maintenance administration for the image
outputting apparatus through the network;

10 wherein the administrating apparatus obtains working
information regarding a working condition of the image outputting
apparatus through the network and renews the software controlling
the plurality of functions and the plurality of units of the
15 image outputting apparatus through the network in accordance with
the obtained working information so that the plurality of
functions and the plurality of units of the image outputting
apparatus are maintained operable in an updated state.

25. (New) The apparatus administrating system of claim 24,
wherein the image outputting apparatus comprises a checking

device to check the working condition of the image outputting
apparatus, and the working information includes check data of the
checking device.

26. (New) The apparatus administrating system of claim 24,
wherein the check device includes sensors for heat, light and
pressure in order to detect changes in values of predetermined
physical characteristics.

27. (New) The apparatus administrating system of claim 24,
wherein the check device includes a monitor for photographing the
working condition of the image outputting apparatus, sensing
sounds around the image outputting apparatus, and sensing smells
around the image outputting apparatus.

28. (New) The apparatus administrating system of claim 24,
wherein each of the plurality of functions and each of the
plurality of units of the image outputting apparatus is provided
with a specified mark for identification and is controlled by
specific software, and wherein the administrating apparatus
obtains working information of each of the plurality of functions
and each of the plurality of units and renews the software
separately for each of the plurality of functions and each of the
plurality of units.

29. (New) The apparatus administrating system of claim 24, wherein the administrating apparatus comprises a memory device and stores the working information in the memory device.

30. (New) The apparatus administrating system of claim 29, wherein the working information stored in the memory device is available from the image outputting apparatus.

31. (New) The apparatus administrating system of claim 24, wherein the system comprises a plurality of said image outputting apparatuses, and wherein the administrating apparatus obtains working information with respect to each of the plurality of image outputting apparatuses, judges whether or not each of the plurality of image outputting apparatus has any abnormality, and renews the software controlling the image outputting apparatus having the abnormality through the network.

32. (New) The apparatus administrating system of claim 24, wherein the maintenance administration conducted by the administrating apparatus includes improvement work and remodeling work for the image outputting apparatus.

33. (New) An apparatus administrating system comprising:
an image outputting apparatus having a plurality of
units; and

an administrating apparatus connected with the image
5 outputting apparatus such that the administrating apparatus is
enabled to control the image outputting apparatus through the
network;

wherein the image outputting apparatus has a function
to transmit structural information regarding the plurality of
10 units, and the administrating apparatus judges at least one
of: (i) compatibility between each of the plurality of units and
the image outputting apparatus, and (ii) compatibility among the
plurality of units.

34. (New) The apparatus administrating system of claim 33,
wherein the structural information includes a serial number and a
version of software controlling the image outputting apparatus.

35. (New) The apparatus administrating system of claim 33,
wherein the image outputting apparatus transmits the structural
information to the administrating apparatus when the image
outputting apparatus is connected to the network.

36. (New) The apparatus administrating system of claim 33,
wherein the image outputting apparatus transmits the structural
information to the administrating apparatus in response to a
request from the administrating apparatus.

37. (New) The apparatus administrating system of claim 33, wherein the image outputting apparatus periodically transmits the structural information to the administrating apparatus.

38. (New) The apparatus administrating system of claim 33, wherein the image outputting apparatus transmits the structural information to the administrating apparatus if the administrating apparatus needs the structural information.

39. (New) The apparatus administrating system of claim 33, wherein when the administrating apparatus judges that a compatibility in a version of software between each of the plurality of units and the image outputting apparatus is not proper, the administrating apparatus controls the image outputting apparatus to download compatible software.

40. (New) The apparatus administrating system of claim 33, wherein when the administrating apparatus judges that the compatibility in a version of software among each of the plurality of unit is not proper, the administrating apparatus notifies the image outputting apparatus.

41. (New) The apparatus administrating system of claim 39, wherein the administrating apparatus notifies the image outputting apparatus of a software incompatibility, selects

compatible structure, notifies the image outputting apparatus of
5 the compatible structure.

42. (New) The apparatus administrating system of claim 33,
wherein the image outputting apparatus has a function to transmit
to the administrating apparatus structural information including
at least one of specific ID information, producer-specified
5 information, and version information corresponding to software
installed in the image outputting apparatus, and wherein the
administrating apparatus has a function to judge compatibility of
the image outputting apparatus based on the structural
information received from the image outputting apparatus.

43. (New) The apparatus administrating system of claim 33,
wherein the image outputting apparatus has a function to transmit
to the administrating apparatus structural information including
at least one of specific ID information, producer-specified
information, and version information corresponding to each of the
plurality of units and each of a plurality of software to the
administrating apparatus, and wherein the administrating
apparatus has a function to judge compatibility among the
plurality of units and the plurality of software, and to
10 automatically switch one of incompatible software and an
incompatible unit of the image outputting apparatus or to change
a version of the incompatible software.

44. (New) An apparatus administrating system comprising:
an image outputting apparatus having a memory to store
error log information; and

an administrating apparatus connected with the image
outputting apparatus through a network such that the
administrating apparatus is enabled to control the image
outputting apparatus through the network;

wherein the administrating apparatus obtains the error
log information from the image outputting apparatus and judges
whether or not a malfunction has occurred in the image outputting
apparatus based on the error log information.

45. (New) The apparatus administrating system of claim 44,
wherein the administrating apparatus at least one of changes,
revises and updates software controlling the image outputting
apparatus based on the error log information.

46. (New) The apparatus administrating system of claim 44,
wherein the image outputting apparatus transmits the error
log information in response to a request of the administrating
apparatus.

47. (New) The apparatus administrating system of claim 44,
wherein the image outputting apparatus transmits the error log

information in response to a request of the administrating apparatus when the error log information is required.

48. (New) The apparatus administrating system of claim 44, wherein the image outputting apparatus transmits the error log information periodically.

49. (New) The apparatus administrating system of claim 44, wherein the image outputting apparatus transmits the error log information when necessary.

50. (New) The apparatus administrating system of claim 44, wherein the image outputting apparatus transmits the error log information at a timing corresponding to contents of the error log information stored in the memory.

R E M A R K S

Consideration of this application as amended is respectfully requested.

The abstract and specification have been amended to correct minor informalities of which the undersigned has become aware. Submitted herewith are marked copies of the changed pages to show that no new matter has been added, and full replacement paragraphs are set forth hereinabove. Accordingly, it is respectfully requested that the amendments to the abstract and specification be approved and entered.

In addition, claims 1-23 have been canceled without prejudice, and new claims 24-50 have been added to clarify the patentably distinguishing features of the present invention. No new matter has been added, and it is respectfully requested that the new claims be approved and entered.

The application now contains 27 claims, of which 3 are independent. Accordingly, a claim fee in the amount of \$72.00 for the addition of 4 extra dependent claims is attached hereto. In addition, authorization is hereby given to charge any additional fees which may be determined to be required to Account No. 06-1378.

In view of the foregoing, it is respectfully requested that prosecution on the merits proceed in light of this Preliminary Amendment.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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apparatus mentioned here is not limited to the so-called photographic printing apparatus, but it includes an image processing apparatus which processes and composes an image and a means to record as processing including thermal recording that records various images, recording such as ink jet recording, and recording such as electrophotography.

In the image outputting apparatus of this kind, there are provided, for example, a film scanner unit, an exposure unit and a developing unit, and for these units, film scanner unit control, exposure unit control and developing unit control are respectively conducted by each separate software.

12 In the image outputting apparatus of this kind, ~~the of~~
this kind, if each of the film scanner unit, the exposure unit and the developing unit is sometimes upgraded independently, or if a software is upgraded to a higher version separately, there are sometimes caused troubles on
17 the image outputting apparatus.

In the case of this kind, even when a user calls a service engineer and solves the troubles by himself based on the instruction of the service engineer, or even when a service engineer visits the actual spot and solves the troubles of the image outputting apparatus, when it is difficult to take actions through a telephone alone, there

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still is a risk that the same troubles are caused again, or a situation where troubles cannot be solved is brought about.

The invention has been achieved in view of the aforesaid points, and its first object is to provide an apparatus administrating system wherein a software can be updated as occasion demands, based on information of each function and unit of the image outputting apparatus.

Incidentally, an image outputting apparatus is installed in a mini-lab, a medical facility or a printing office, and specifications of this image outputting apparatus vary in many cases depending on each user or on each apparatus. Further, setting of the image outputting apparatus also varies in many cases depending on a difference of meteorological conditions of the area for installation.

15 Therefore, maintenance of the image outputting apparatus must reflect ~~X~~ circumstances of each user or of each apparatus and meteorological conditions of an area for
18 installation, which is extremely complicated.

Further, on the image outputting apparatus itself or on each unit provided on the image outputting apparatus, a software matched to each unit needs to be installed, and then, a difference is caused between an old software version and the updated software version, because of option setting

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~~ABSTRACT OF THE DISCLOSURE~~ 2

In an apparatus administrating system, transmission and receipt are possible between at least one image outputting apparatus and an administrating apparatus that conducts maintenance administration for the image outputting apparatus mutually. ^{Each} ~~each~~ function and each unit both necessary for operating the image outputting apparatus are controlled on a unification basis. ^{The} ~~the~~ administrating apparatus acquires information about the functions and units of the image outputting apparatus through transmission and receipt. ^{And} ~~and~~ software of plural image outputting apparatuses capable of operating under appropriate conditions including the image outputting apparatus are updated as occasion demands.

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